

In the claims:

Claims 1 to 10 canceled.

11. (currently amended) A method of making a stator of an electric machine, said method comprising:

- a) making individual generally strip-shaped laminas (15) for the stator;
- b) stacking the individual laminas (15) to form a stator core (13) with a yoke (26) having a yoke height (H<sub>yoke</sub>), so that one side of the stator core is provided with grooves (18) extending through the core;
- c) producing a subassembly by inserting a stator winding (17) into the grooves (18) of the stator core (13) formed in step b);
- d) bending the subassembly in a circular fashion to form a cylindrical cavity, so that the grooves (18) end in the cavity; and
- e) in order to keep the subassembly in a configuration with the cylindrical cavity, connecting at least two ends (23) of the stator core (13) to each other by means of a welding seam (20); and
- f) selecting a depth of the welding seam to give the welding seam a sufficient strength to absorb tensile forces occurring in the welding seam, but at the same time not to exert too excessive a negative influence on magnetic properties at a welding point due to structural changes occurring in the yoke, said selecting including selecting a welding seam depth (T<sub>S</sub>) of the welding seam (20)

is as a function of the yoke height ( $H_{yoke}$ ) and a tolerance value ( $\Delta T_S$ ) in accordance with the following formula (I):

$$T_S = 0.5 \text{ mm} * (H_{yoke}/\text{mm} - 1) \pm \Delta T_S \quad (\text{I}).$$

12. (currently amended) The method as defined in claim 11, further comprising selecting the tolerance value ( $\Delta T_S$ ) to be 1.0 mm.

13. (currently amended) The method as defined in claim 11, further comprising selecting the tolerance value ( $\Delta T_S$ ) equal to be equal 0.5 mm.

14. (currently amended) The method as claimed in claim 11, further comprising selecting the welding seam depth ( $T_S$ ) of the welding seam (20) to be not less than a minimum value ( $T_{Smin}$ ) and said minimum value ( $T_{Smin}$ ) to be dependent on the yoke height ( $H_{yoke}$ ) and to be described by the following formula (II):  $T_{Smin} = \{3/40\} * H_{yoke}$ .

15. (currently amended) The method as claimed in claim 11, further comprising providing the stator core (13) with a yoke (26) and arranging the welding seam (20) on a radial outside (30) of the yoke (26).

16. (previously presented) The method as claimed in claim 11, further comprising providing the stator core (13) with a plurality of teeth (25), arranging the welding seam (20) on a radial outside (30) of the yoke (26) and

arranging the welding seam (20) in one of said teeth, with said one of said teeth comprising two partial teeth (24).

17. (previously presented) The method as claimed in claim 11, further comprising disposing the welding seam (20) on at least one axial end of the stator core (13).

18. (previously presented) The method as claimed in claim 11, further comprising making the welding seam by a laser welding process with a laser beam.

19. (currently amended) An electric machine comprising a stator (10) made by a method, which comprises:

- a) making individual generally strip-shaped laminas (15) for the stator;
- b) stacking the individual laminas (15) to form a stator core (13) with a yoke (26) having a yoke height ( $H_{yoke}$ ), so that one side of the stator core is provided with grooves (18) extending through the core;
- c) producing a subassembly by inserting a stator winding (17) into the grooves (18) of the stator core (13) formed in step b);
- d) bending the subassembly in a circular fashion to produce a cylindrical cavity, so that the grooves (18) end in the cavity; and

e) in order to keep the subassembly in a configuration with the cylindrical cavity, connecting at least two ends (23) of the stator core (13) to each other by means of a welding seam (20);

wherein a welding seam depth ( $T_s$ ) of the welding seam (20) is such that it gives the welding seam a sufficient strength to absorb tensile forces occurring in the welding seam, but at the same time the welding seam does not exert too excessive a negative influence on magnetic properties at a welding point due to structural changes occurring in the yoke, and therefore the welding seam depth ( $T_s$ ) of the welding seam (20) is selected as a function of the yoke height ( $H_{yoke}$ ) and a tolerance value ( $\Delta T_s$ ) in accordance with the following formula (I):  $T_s = 0.5 \text{ mm} * (H_{yoke}/\text{mm} - 1) \pm \Delta T_s$  (I).

20. (previously presented) The electric machine as defined in claim 19, consisting of a generator.

21. (previously presented) The electric machine as defined in claim 19, wherein the tolerance value ( $\Delta T_s$ ) equals 1.0 mm.

22. (previously presented) The electric machine as defined in claim 19, wherein the tolerance value ( $\Delta T_s$ ) equals 0.5 mm.

23. (previously presented) The electric machine as claimed in claim 19, wherein the welding seam depth ( $T_S$ ) of the welding seam (20) is not less than a minimum value ( $T_{Smin}$ ) and said minimum value ( $T_{Smin}$ ) depends on the yoke height ( $H_{Yoke}$ ) and is described by the following formula (II):  $T_{Smin} = \{3/40\} * H_{Yoke}$ .